

What Is Claimed Is:

Sub A1

1. A method of blending unleaded gasolines which are substantially free of ether compounds and which have a Reid vapor pressure of greater than or equal to 7.00 and less than or equal to 15.00 psi, which method comprises
 - 5 (a) blending some or all gasoline component streams from an oil refinery and keeping the blend substantially free of ethers, and
 - (b) controlling the blending of the streams such that the blended unleaded gasolines are in compliance with a California Predictive Model.
- 10 2. The method of Claim 1, wherein the blending is such that the blended unleaded gasolines are in compliance with the Phase 2 California Predictive Model.
3. The method of Claim 1, wherein the blending is such that the blended unleaded gasolines are in compliance with the Phase 3 California Predictive Model.
4. The method of Claim 1, wherein the blending of the streams from an oil refinery is on a continuous basis.
- 15 5. The method of Claim 1, wherein testing of the blended unleaded gasoline is conducted for compliance with the California Phase 3 Predictive Model, and necessary adjustments in the blends based on the results of the testing are made to maintain compliance with the California Phase 3 Predictive Model.

6. The method of Claim 1, wherein testing of the blended unleaded gasoline is conducted for compliance with the California Phase 2 Predictive Model, and necessary adjustments in the blends based on the results of the testing are made to maintain compliance with the California Phase 2 Predictive Model.

5 7. The method of Claim 5, wherein the testing is conducted on a continuous basis.

8. The method of Claim 6, wherein the testing is conducted on a continuous basis.

10 9. The method of Claim 5, wherein the testing is conducted on a periodic basis.

10. The method of Claim 6, wherein the testing is conducted on a periodic basis.

11. The method of Claim 4, wherein testing of the blended unleaded gasoline is conducted for compliance with the California Phase 3 Predictive Model, and necessary adjustments in the blends based on the results of the testing are made to maintain compliance with the California Phase 3 Predictive Model.

12. The method of Claim 4, wherein testing of the blended unleaded gasoline is conducted for compliance with the California Phase 2 Predictive Model, and necessary adjustments in the blends based on the results of the testing are made to maintain compliance with the California Phase 2 Predictive Model.

13. The method of Claim 1, wherein the streams are blended so as to provide a gasoline having a Reid vapor pressure of less than 15.0.

14. The method of Claim 1, wherein the streams are blended such that the blended gasoline has a Reid vapor pressure and a range from about 8 to 13.5.

15. The method of Claim 1, wherein the streams are blended such that the blended gasoline has an octane in the range of 87 to 89 $(R+M)/2$.

5 16. The method of Claim 1, wherein the streams are blended such that the blended gasoline has an octane in the range of from 89 to 92 $(R+M)/2$.

17. The method of Claim 1, wherein the streams are blended such that the blended gasoline has an octane rating of greater than 92 $(R+M)/2$.

10 18. The method of Claim 1, wherein the streams are blended such that the blended gasoline is in compliance with the flat specification compliance option of CARB.

19. The method of Claim 1, wherein the streams are blended such that the blended gasoline is in compliance with the averaging specification compliance option of CARB.

15 20. The method of Claim 1, wherein the streams blended are blended such that the blended gasoline contains less than 30 ppm sulfur.

21. The method of Claim 1, wherein the blended gasoline contains less than 20 ppm sulfur.

20 22. The method of Claim 1, wherein the blended gasoline contains less than 10 ppm sulfur.

23. The method of Claim 1, wherein the blended gasoline contains less than 5 ppm sulfur.

24. The method of Claim 1, wherein the streams are blended such that the blended gasoline contains less than 4 vol. % olefins.

5 25. The method of Claim 1, wherein the blended gasoline contains less than 3 vol. % olefins.

26. The method of Claim 1, wherein the blended gasoline contains less than 2 vol. % olefins.

10 27. The method of Claim 1, wherein the streams are blended such that the blended gasoline exhibits a T_{50} of less than 203° F.

28. The method of Claim 1, wherein the blended gasoline exhibits a T_{50} of less than 200° F.

29. The method of Claim 1, wherein the blended gasoline exhibits a T_{50} of less than 190° F.

15 30. The method of Claim 1, when the streams are blended such that the blended gasoline contains less than 0.5 wt. % benzene.

31. A blended gasoline composition prepared by the method of Claim 1.

32. The composition of Claim 31, wherein the gasoline has a Reid vapor pressure of less than 13.5.

33. The composition of Claim 31, wherein the blended gasoline composition has an octane of 87 to 89 (R+M)/2.

34. The gasoline composition of Claim 31, wherein the composition has an octane from 89 to 92 (R+M)/2.

5 35. The gasoline composition of Claim 31, wherein the gasoline has an octane of greater than 92 (R+M)/2.

36. The gasoline composition of Claim 31, wherein the composition contains less than 30 ppm sulfur.

10 37. The gasoline composition of Claim 31, wherein the composition contains less than 20 ppm sulfur.

38. The gasoline composition of Claim 31, wherein the composition contains less than 10 ppm sulfur.

39. The gasoline composition of Claim 31, wherein the composition contains less than 5 ppm sulfur.

15 40. The gasoline composition of Claim 31, wherein the composition contains less than 4 vol. % olefins.

41. The gasoline composition of Claim 31, wherein the composition contains less than 3 vol. % olefins.

20 42. The gasoline composition of Claim 31, wherein the composition contains less than 2 vol. % olefins.

43. The gasoline composition of Claim 31, wherein the composition exhibits a T_{50} of less than 203°F .

44. The gasoline composition of Claim 31, wherein the composition exhibits a T_{50} of less than 200°F .

5 45. The gasoline composition of Claim 31, wherein the composition exhibits a T_{50} of less than 190°F .

46. The gasoline composition of Claim 31, wherein the composition less than 0.5 vol. % benzene.

10 47. The method of claim 1, wherein the streams are blended so as to provide a gasoline having a Reid vapor pressure of greater than 7.2.

48. The gasoline composition of claim 31, wherein the streams are blended so as to provide a gasoline having a Reid vapor pressure of greater than 7.2.

49. The method of claim 1, wherein ethanol is blended with the gasoline.

15 50. The method of claim 1, wherein ethanol is blended with the gasoline at a different site.

51. The method of claim 50, wherein the ethanol is blended at a terminal site.